

# Montana State Library

*Records Digitization Project*

## COVER SHEET



*This page is not part of the original document and was inserted for formatting purposes*



# MONTANA TEACHERS' RETIREMENT SYSTEM

PLEASE RETURN

DEPARTMENT OF ADMINISTRATION



STATE DOCUMENTS COLLECTION

OCT 29 1991

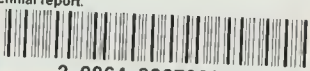
MONTANA STATE LIBRARY  
1515 E. 6th AVE.  
HELENA, MONTANA 59620

1984

## BIENNIAL REPORT

JUL 22 1992

MONTANA STATE LIBRARY  
S 331.252 T1r c.1  
Biennial report.



3 0864 00073286 0

# The Teachers' Retirement System



## State of Montana

1500 Sixth Ave. Phone 406-444-3134  
HELENA, MONTANA 59620

### MEMBERS OF THE BOARD

J. THOMAS RYAN, Helena, Chairman  
JAMES E. BURKE, Livingston  
J. WILLIAM KEARNS, JR., Townsend  
KENNETH M. MESKE, Great Falls  
EDWARD F. ARGENBRIGHT  
State Supt. of Public Instruction, Ex Officio  
LEROY A. CORBIN, Butte

F. ROBERT JOHNSON, Executive Secretary  
MARY L. ANDRIDGE, Ass't Executive Secretary

The Honorable Ted Schwinden  
Governor  
State of Montana  
State Capitol  
Helena, Montana 59620

Dear Governor Schwinden:

On behalf of the Teachers' Retirement Board and in accordance with 19-4-201(4), we are pleased to submit herewith, the biennial report of the Teachers' Retirement System, for the two fiscal years 1982-1983 and 1983-1984.

The report consists of four sections, the Financial Section, which provides financial statements of the system, along with accompanying footnotes; the Actuarial Section, which includes the independent consulting actuary's analysis and results of the biennial valuation; the Investment Section, which gives a detailed listing of investments; the Statistical Section, which contains historical data of the system's contribution rates, revenues and expenditures over a given period of time.

The Teachers' Retirement Board is dedicated to a policy that the system be maintained on an actuarially sound basis, to assure that future benefits will be payable to our members and beneficiaries. Of particular significance in this respect, is the reduction in the amortization period of the unfunded liability from 48.50 years to 40.25 years, which was the result of legislation passed in the 1983 Legislature.

Sincerely,

A handwritten signature in cursive script, reading "F. Robert Johnson".

F. Robert Johnson  
Executive Secretary

RJ/dlb



# T A B L E O F C O N T E N T S

	<u>P A G E</u>
RETIREMENT BOARD, ADMINISTRATIVE STAFF, LEGAL ADVISOR AND PROFESSIONAL CONSULTANTS	iii
FINANCIAL SECTION . . . . .	1
BALANCE SHEET	3
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE	4
STATEMENT OF CHANGES IN FINANCIAL POSITION	5
NOTES TO FINANCIAL STATEMENTS	6
ACTUARIAL SECTION . . . . .	11
INTRODUCTION	13
ANALYSIS OF VALUATION	14
NORMAL COST ALLOCATION	16
CONTRIBUTION AND LIABILITY ALLOCATION	17
PRESENT VALUE OF BENEFITS	18
ACTUARIAL FUNDING METHOD AND ASSUMPTIONS	19
COMPARISON SUMMARY	23
INVESTMENT SECTION . . . . .	25
INDUSTRIAL	27
BANKS AND INSURANCE	31
OTHER FINANCIAL	32
TRANSPORTATION EXCLUDING RAILROADS	32
RAILROADS	33
UTILITIES	34
CANADIAN	40
CONVERTIBLE BONDS	42
U.S. BANKERS ACCEPTANCE	42
U.S. GOVERNMENT OBLIGATIONS	42
U.S. GOVERNMENT AGENCIES	43
STATE DIRECT OR MUNICIPAL	44
MISCELLANEOUS	44
STATISTICAL SECTION . . . . .	45
CONTRIBUTION RATES	47
REVENUES	48
EXPENDITURES	48
SUMMARY OF ADMINISTRATIVE EXPENSES	49
ACTIVE MEMBERS	50
RETIRED MEMBERS	50
LOCATION OF BENEFIT RECIPIENTS	51





PRINCIPAL OFFICES AND OFFICERS  
THE TEACHERS' RETIREMENT SYSTEM

TEACHERS' RETIREMENT BOARD

<u>MEMBER</u>	<u>TERM</u>	<u>ADDRESS</u>
J. THOMAS RYAN, CHAIRMAN	7/01/81 to 7/01/85	1057 Phillips Lane Helena, MT 59601
J. WILLIAM KEARNS, JR. VICE - CHAIRMAN	7/01/81 to 7/01/85	210 North Walnut Townsend, MT 59644
JAMES E. BURKE	7/01/84 to 7/01/88	216 South 5th Livingston, MT 59047
LEROY CORBIN	7/01/82 to 7/01/86	1208 West Silver Butte, MT 59701
KENNETH M. MESKE	7/01/83 to 7/01/87	3437 - 12th Avenue So. Great Falls, MT 59405
EDWARD F. ARGENBRIGHT	Ex Officio	Office Public Instruction State Capitol Helena, MT 59620

ADMINISTRATIVE OFFICERS

F. ROBERT JOHNSON	Executive Secretary
MARY L. ANDRIDGE	Assistant Executive Secretary

LEGAL ADVISOR

M. VALENCIA LANE, ATTORNEY	Department of Administration
----------------------------	------------------------------

PROFESSIONAL CONSULTANTS

HENDRICKSON and ASSOCIATES INC.	Actuarial Consultants Helena, Montana 59601
---------------------------------	--



## FINANCIAL SECTION

---

BALANCE SHEET

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN  
FUND BALANCE

STATEMENT OF CHANGES IN FINANCIAL POSITION

NOTES TO FINANCIAL STATEMENTS.



TEACHERS' RETIREMENT SYSTEM  
BALANCE SHEET  
JUNE 30, 1984

ASSETS:

Current Assets:

Cash	\$ 4,128,685
Accounts Receivable	5,504,372
Interest Receivable	6,490,794

Investments:

Mortgages	\$ 46,304,745	
Securities	218,786,691	
Common Stock	43,773,621	
Land and Buildings	193,844	
Less: Accumulated Depreciation on Buildings	<u>(53,324)</u>	
Total Investments		309,005,577

Other Assets:

Equipment	22,294
Less: Accumulated Depreciation on Equipment	(13,627)
Deferred Losses (Footnote A)	<u>13,177,686</u>

TOTAL ASSETS \$338,315,781

LIABILITIES AND FUND BALANCE:

Current Liabilities:

Accounts Payable	\$ 665,527
Accrued Expenditures	183,615

Other Liabilities:

Unamortized Mortgage Discounts	143,705
--------------------------------	---------

Deferred Gains 2,099,957

Fund Balance:

Pension Accumulation	123,387,873	
Annuity Savings	142,865,469	
Annuity Interest Savings	<u>68,969,635</u>	
Total Fund Balance		<u>335,222,977</u>

TOTAL LIABILITIES AND FUND BALANCES \$388,315,781

The footnotes to the financial statements are an integral part of this statement.

TEACHERS' RETIREMENT SYSTEM  
STATEMENT OF REVENUES, EXPENSES, AND  
CHANGES IN FUND BALANCE  
FOR THE FISCAL YEARS ENDED JUNE 30, 1983 AND 1984

	<u>1984</u>	<u>1983</u>
OPERATING REVENUES:		
Membership Contributions	\$ 25,018,366	\$ 20,786,014
Employer Contributions	24,103,285	20,158,344
Investment Earnings	30,338,736	25,916,847
Total Operating Revenues	<u>79,460,387</u>	<u>66,861,205</u>
OPERATING EXPENSES:		
Benefit Payments	28,791,213	25,957,774
Withdrawals	4,230,672	3,405,461
Administrative Expenses	489,981	320,960
Investment Expense	100,580	93,422
Prior Year Adjustments	488,339	367,931
Depreciation Expense	4,983	4,938
Total Operating Expenses	<u>34,105,768</u>	<u>30,150,486</u>
OPERATING TRANSFERS IN:		
Public Employees' Retirement System	<u>40,573</u>	<u>21,890</u>
OPERATING INCOME	<u>45,395,192</u>	<u>36,732,609</u>
FUND BALANCE, JULY 1	<u>289,827,585</u>	<u>253,068,428</u>
Adjustments to Fund Balance		<u>26,113</u>
FUND BALANCE, JUNE 30	<u>\$335,222,777</u>	<u>\$289,827,150</u>

The footnotes to the financial statements are an integral part of this statement.

TEACHERS' RETIREMENT SYSTEM  
STATEMENT OF CHANGES IN FINANCIAL POSITION  
FOR THE FISCAL YEARS ENDED JUNE 30, 1983 AND 1984

	<u>1984</u>	<u>1983</u>
SOURCE OF WORKING CAPITAL:		
Net Operating Income	\$ 45,395,193	\$ 36,732,609
Add Items Not Requiring the Use of Working Capital:		
Depreciation	4,983	4,938
Deferred Gains	520,932	1,417,653
Deferred Revenue		34,219
TOTAL SOURCES	<u>\$ 45,921,108</u>	<u>\$ 38,189,419</u>
USE OF WORKING CAPITAL:		
Investments	43,353,154	32,348,217
Deferred Losses	1,642,592	152,812
Deferred Revenue	34,219	
Undetermined Use	45,206	32,928
TOTAL USE	<u>\$ 45,075,171</u>	<u>\$ 32,533,957</u>
NET INCREASE IN WORKING CAPITAL	<u>\$ 845,937</u>	<u>\$ 5,655,462</u>
ELEMENTS OF NET INCREASE IN WORKING CAPITAL:		
Cash	\$ (930,579)	\$ 4,023,174
Accounts Receivable	1,047,437	786,232
Interest Receivable	1,145,887	846,419
Accounts Payable	(242,931)	(7,313)
Accrued Expenditure	(173,877)	(9,390)
Uncleared Collections		16,340
NET INCREASE IN WORKING CAPITAL	<u>\$ 845,937</u>	<u>\$ 5,655,462</u>

The footnotes to the financial statements are an integral part of this statement.

TEACHERS' RETIREMENT SYSTEM  
NOTES TO THE FINANCIAL STATEMENTS  
FISCAL YEAR ENDED JUNE 30, 1984

NOTE A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The Teachers' Retirement System maintains its accounts on the full accrual basis of accounting.

Valuation of Investments

Short-term investments and state securities are stated at cost. Federal and corporate securities are stated at book value increased by the amount of unamortized premiums (\$121,764 in fiscal year 1984) and decreased by unamortized discounts (\$16,158,623 in fiscal year 1984).

Market value of the investments were as follows:

	<u>June 30, 1984</u>
Common Stock	\$ 58,168,803
Securities	
Bankers Acceptances	3,976,870
U.S. Governmental Securities	35,071,564
Canadian Obligations	20,241,701
Municipal Bonds	1,321,118
Corporate Bonds	119,435,168
Securities Subtotal	<u>180,046,421</u>
Montana Mortgages	46,304,688
Land and Buildings	139,271
	<u>\$284,659,183</u>



### Gains and Losses on Bond Swaps

The deferral and amortization method was used for accounting for gains and losses on bond swaps (i.e., the unamortized deferred gains or losses are netted against the investment account and written off over the life of either the bond sold or acquired, whichever is less).

### NOTE B. DESCRIPTION OF PLAN

The Teachers' Retirement System is a defined benefit plan that covers all teachers in the state of Montana. The member's contribution to the plan is 7.044 percent of the member's salary and is deducted by the employer and sent to the Retirement System to be credited to the member's individual account. The employer pays an amount equal to 7.32 percent of the member's salary to the Retirement System.

A detailed description of the Teachers' Retirement System plan can be found in the Montana Code Annotated, Title 19, Chapter 4, and in the Montana Teachers' Retirement System Handbook of Information available upon request from the Teachers' Retirement System, 1500 Sixth Avenue, Helena, Montana 59620.

### NOTE C. UNFUNDED ACCRUED LIABILITY

#### Method of Funding

The method of funding employed in the actuarial valuation as of July 1, 1983, is commonly referred to as the entry age

normal cost method. This method establishes a normal cost of the system, as well as an unfunded percentage of total salaries required to fund the benefits, assuming this percentage had been contributed since each member's entry into the system.

The unfunded accrued liability represents the excess of the present value of total liabilities over the present assets of the system and the present value of expected future contributions for normal costs. The unfunded accrued liability was calculated to be \$519,277,339 as of June 30, 1983. The amortization period of the unfunded liability was determined to be 40.25 years.

The actuary concluded that the Retirement System is funded on an actuarially sound basis. This means that the present employee/employer contribution rate is sufficient to fund the actuarial liability.

#### NOTE D. ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

The actuarial present value of accumulated plan benefits is as follows:

1.	Vested benefits of participants receiving payments:	\$263,744,000
2.	Vested benefits of current employees:	333,122,000
3.	Nonvested benefits of current employees:	11,409,000

The present value of vested benefits of current employees anticipating future benefit increases based upon projected salary increases would be \$516,418.000. Similarly, the present value of nonvested benefits anticipating future benefits increases based on projected salary increases would be \$15,540.000.

The projected increases in vested benefits are based upon an underlying cost-of-living assumption of 5½ percent plus increases for meritorious service and longevity.

#### NOTE E. REPORTING

Teachers' Retirement Division's financial statements presented in the report previous to this one and for fiscal year 1982-1983, were prepared from the activity in the following accounting entities: 02077 - Teachers' Retirement Earmarked Revenue Account; 09089 - Teachers' Retirement Agency Account; and 09307 - Teachers' Retirement Fullam Estate Agency Account.

These entities were reorganized at the beginning of fiscal year 1983-1984 and the financial statements for this period reflect the activity in the following accounting entities: 09506 - Teachers' Retirement Agency Account, which includes all activity previously recorded in the Earmarked Revenue Account; and 08002 - Teachers' Retirement Fullam Estate Agency Account.

NOTE F. USE OF ESTIMATES

The figure reported on the balance sheet for fiscal year 1984 as interest receivable in the amount of \$6,490,794 is an estimated figure provided by the Board of Investments. An estimate was used because the actual figure was not available at the time of the audit. The actual figure for interest receivable is not expected to differ materially from the estimated amount reported.

NOTE G. COMPENSATED ABSENCES

Teachers' Retirement Division's liability for compensated absences is \$21,814 as of June 30, 1984. This represents 100 percent of accrued vacation and 25 percent of accrued sick leave for division personnel at that date.

## ACTUARIAL SECTION

---

INTRODUCTION

ANALYSIS OF VALUATION

NORMAL COST ALLOCATION

CONTRIBUTION AND LIABILITY ALLOCATIONS

PRESENT VALUE AND BENEFITS

ACTUARIAL FUNDING METHOD AND ASSUMPTIONS

COMPARISON SUMMARY



## INTRODUCTION

An actuarial valuation of the Teachers' Retirement System of the State of Montana has been completed as of July 1, 1983. This valuation was authorized by the Teachers' Retirement Board under Section 19-4-203, M.R.C. The purpose of the valuation was to determine the financial position of the fund, the normal cost, and the unfunded accrued liability based upon present and prospective assets and liabilities of the system as of July 1, 1983.

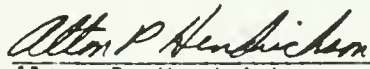
Section II presents an analysis of the results of the actuarial valuation. The numerical findings supporting this analysis are shown in Section III.

In conducting the actuarial valuation, certain assumptions were made as to the future experience of the system. A summary and discussion of each of the assumptions is contained in Section IV.

The valuation is based upon the Teachers' Retirement Act and incorporates all amendments as of July 1, 1983. Employee data and other records supplied by the system are summarized by classification in Section V and VI. A summary of the major provisions of the Act is contained in Section VII.

## ACTUARIAL CERTIFICATION

Based upon the assumptions stated in this report and the employee data and other records provided by the Teachers' Retirement System, the actuarial valuation contained in this report has been performed in accordance with generally accepted actuarial principles and techniques.

  
Alton P. Hendrickson  
Member, American Academy  
of Actuaries



## ANALYSIS OF VALUATION

### SUMMARY OF FINDINGS

Based on the valuation which was conducted as of July 1, 1983, we have concluded that the Montana Teachers' Retirement System is funded on an actuarially sound basis. The total contribution rate of 14.364% of salaries is sufficient to finance the cost of benefits as they accrue in the future as well as to amortize the current unfunded liability over a period of 40.25 years. A contribution rate of 14.391% of salaries would be required to amortize the unfunded liability over a recommended period of 40 years.

As of July 1, 1983, the employee contribution rate was increased from 6.187% of salary to 7.044%; similarly, the employer contribution rate was increased from 6.464% of salary to 7.320%. The total contribution rate was increased by 1.714% of salary. A portion of this increase was attributable to a cost increase of .994% of salary required to permit members to retire with unreduced benefits after 25 years of creditable service. The actuarial assumptions on page 22 illustrate the anticipated retirement rates resulting from this provision.

The remaining increase of .720% of salary was the amount determined in the July 1, 1981 actuarial valuation to amortize the unfunded liability over a period of 40 years. The amortization period of the unfunded liability based upon the statutory contribution rates decreased from 48.50 years as of July 1, 1981 to 40.25 years as of July 1, 1983. This decrease was attributable to the rate increase for the express purpose of reducing the amortization period.

The specific effects of actual experience over anticipated experience are discussed below for active and inactive members.

### VALUATION OF ACTIVE MEMBERS

On July 1, 1981, there were 14,055 members with an annual payroll of \$237,411,637, producing an average annual salary of \$16,892. On July 1, 1983, the number of members had grown only to 14,243, but the payroll had increased to \$293,239,164, producing an average annual salary of \$20,588. The average annual salary increased 21.9% during the two-year period; the actuarial assumptions had anticipated an increase of 11.3%. The result was a loss on the actual over the anticipated salary increases. This loss was somewhat offset by an investment return of approximately 10.5% compared to the assumed earnings of 7%.

The present value of benefits for active members grew from \$581 million in 1981 to \$778 million in 1983, representing a 33.9% increase. Of this amount, 21.9% represented increases resulting directly from payroll increases. The remaining portion of the increase was mainly attributable to the reduction from 30 years to 25 years for the service required to receive unreduced benefits. The reduced service requirement caused the normal cost rate to increase from 7.787% to 8.593%.



## VALUATION OF INACTIVE MEMBERS

The number of members receiving benefits grew from 4,885 in 1981 to 5,172 in 1983. The total monthly benefits grew from \$2,022.079 in 1981 to \$2,333,473 in 1983. This growth represented an average monthly benefit increase of 8.9%. While the total benefits increased 15.4%, the liability for the benefits increased 16.5%. The liability increased a larger amount because the average monthly benefits are disproportionately larger for younger members with more liability per dollar of benefit.

The liability increases for retired members were amounts which had been anticipated. There were no increases resulting from any abnormal situations or legislative changes.

## DATA ANALYSIS

A thorough review was made of the data provided by the Teachers' Retirement System. This review included an examination for completeness and reasonableness. The data was also sampled and a comparison made between the computerized data and the actual records.

The result of this review was the determination that the data is very accurate. The few pieces of inaccurate information were corrected. With the exception of a number of birthdates which were not available, the information provided by the Teachers' Retirement System is complete.

A detailed summary of the member's salaries and benefits is illustrated in this report. The active members have been categorized by full-time and part-time members in order to prevent any distortion of the average salaries.

## GENERAL

The liabilities of the System grew substantially during the biennium. The growth was attributable to a legislated benefit improvement (retirement after 25 years) and salary increases of 21.9%. Although liabilities increased, the System continues to be well-funded because of an increase in the statutory contribution rates. The assets grew over \$65 million during the biennium to \$291,844.682, which was a 28.8% increase.

From an actuarial standpoint, the Teachers' Retirement System appears to be well-managed: the System's liabilities are being funded in a manner which will allow the unfunded liability to be funded in approximately 40 years; the investment earnings on assets are consistently high; and the accounting and record keeping systems provide complete and accurate data.

RESULTS OF VALUATION

NORMAL COST ALLOCATION

(1) Normal Cost Contribution Rate:

(a) Retirement	6.191%
(b) Survivors	0.373
(c) Disability	0.256
(d) Vested Terminations	0.656
(e) Withdrawals	<u>1.117</u>
(f) Total Rate	8.593%

(2) Present Value of Future Salaries  
Of Current Members . \$2,681,034.369

(3) Normal Cost Contribution Rate 8.593%

(4) Present Value of Future Normal Costs  
For Current Members (1(f) \* (2)) \$ 230,381,283

CONTRIBUTION AND LIABILITY ALLOCATIONS

(1) Unfunded Accrued Liability

(a) Present Value of Benefits	\$1,041,503,304
(b) Present Value of Future Normal Costs	230,381,283
(c) Fund Assets	<u>291,844,682</u>
(d) Unfunded Liability (a)-(b)-(c)	\$ 519,277,339

(2) Contribution Rates Amortized over 40.00 Years

(a) Present Value of Salaries During Next 40.00 Years	\$8,956,853,021
(b) Unfunded Contribution Rate 1(d)/2(a)	5.798%
(c) Normal Cost Rate (Schedule 1)	<u>8.593%</u>
(d) Total Funding Rate	14.391%

(3) Contribution Rates Amortized over 40.25 Years

(a) Present Value of Salaries During Next 40.25 Years	\$8,998,047,808
(b) Unfunded Contribution Rate 1(d)/3(a)	5.771%
(c) Normal Cost Rate (Schedule 1)	<u>8.593%</u>
(d) Total Funding Rate	14.364%

PRESENT VALUE OF BENEFITS

(1) Present Value of Benefits - Inactive Members

(a) Retirement	\$229,805,497	
(b) Survivors	12,332,472	
(c) Disability	10,327,807	
(d) Vested Terminations	7,819,830	
(e) Withdrawals	2,173,868	
(f) Tax Sheltered Annuity	1,242,202	
(g) Excess Interest Payment	<u>41,893</u>	
(h) Total Inactive		\$ 263,743,569

(2) Present Value of Benefits - Active Members

(a) Retirement	\$627,617,984	
(b) Survivors	30,159,871	
(c) Disability	15,091,362	
(d) Vested Terminations	46,771,530	
(e) Withdrawals	55,862,919	
(f) Tax Sheltered Annuity	2,206,035	
(g) Legacy Fund	<u>50,034</u>	
(h) Total Active		\$ 777,759,735

(3) Total Liabilities \$1,041,503,304

## ACTUARIAL FUNDING METHOD AND ASSUMPTIONS

### GENERAL

The true cost of the Teachers' Retirement System will be determined by its own future experience. In determining the financial requirement of a system, certain assumptions must be made as to the expected future experience. This section summarizes the funding method applied as well as the basic assumptions used.

Any variations in the actual experience of the system from those assumed in this valuation may cause changes in the projected future costs of the system. It is therefore necessary that the actuarial assumptions be reviewed from time to time with adjustments as experience warrants. It is also important that regular valuations be performed to determine the financial effect of variations between the actual and assumed experience.

The assumptions shown below were based upon the actual past experience of the system together with our projections as to future experience.

### FUNDING METHOD

The method of funding employed is commonly referred to as the entry age normal cost method. This method establishes a normal cost of the system as well as an unfunded accrued liability. The normal cost is the level percentage of total salaries required to fund the benefits, assuming this percentage had been contributed since each member's entry into the system.

The unfunded accrued liability represents the excess of the present value of total liabilities over the present assets of the system and the present value of expected future contributions for normal costs.

In order to maintain the system on an actuarially sound basis, the total rate of contribution should be such as to meet the normal cost in addition to making progress towards the amortization of the unfunded accrued liability.

### MORTALITY RATES

The mortality rates for males and females are based upon a published table referred to as the 1971 Group Annuity Mortality Table. The expected annual rates of mortality for selected ages are shown below:

<u>Age</u>	<u>Female</u>	<u>Male</u>
25	.035%	.062%
30	.047	.081
35	.065	.112
40	.094	.163
45	.140	.292
50	.215	.529
55	.326	.852
60	.549	1.312
65	.956	2.126
70	1.648	3.611
75	3.239	5.529
80	5.609	8.743
85	8.918	13.010
90	13.858	17.945

### DISABILITY RATES

The disability rates are based upon the ordinary disability rates published by the Railroad Retirement Board in its eighth valuation, with modifications to reflect the Teachers' Retirement System's experience. The expected annual rates of disability for selected ages are shown below:

<u>Age</u>	<u>Annual Rate of Disability</u>
25	.024%
30	.024
35	.032
40	.072
45	.152
50	.272
55	.496
60	1.586

### WITHDRAWAL RATES

The withdrawal rates are based upon the experience of the Teachers' Retirement System. The expected annual rates of withdrawal for selected ages are shown below:

<u>Age</u>	<u>Annual Rate of Withdrawal</u>
25	13.78%
30	11.45
35	9.43
40	7.55
45	5.32
50	2.95
55	1.81
60	1.33

### FUTURE SALARIES

The rates of future salary increases are based upon longevity and meritorious increases by age, in addition to an inflationary assumption of 5.5% per year. The expected annual rates of salary increases are shown below for longevity and meritorious increases as well as total annual increases:

<u>Age</u>	<u>Longevity and Meritorious</u>	<u>Total</u>
20	3.90%	9.61%
25	3.40	9.09
30	3.00	8.67
35	2.10	7.72
40	1.10	6.66
45	.60	6.13
50	.50	6.03
55	.50	6.03
60	.50	6.03



## RETIREMENT RATES

The retirement ages among members eligible to retire are based upon the actual experience of the system, and the anticipated experience from a new provision allowing members to retire with unreduced benefits after completing 25 years of creditable service. The expected annual rates of retirement among members eligible to retire are shown below:

<u>Age</u>	<u>Annual Rate of Service Retirement</u>
54 or less	15%
55-59	20
60	25
61	30
62	40
63	30
64-69	25

It is further assumed that 30% of the members will retire immediately upon becoming eligible.

Immediate retirement is assumed for members who have attained age 70 or older.

## INVESTMENT EARNINGS

The annual rate of return was assumed to be 7% for future investment earnings.

## EXPENSES

The administrative expenses are assumed to be paid from investment earnings in excess of the assumed rate of 7%.

## ASSETS

Investments, except mortgages, are valued at amortized book value. Mortgages are valued at par value. Publicly traded securities are valued at current market values.

Premiums and discounts are amortized using the straight-line method over the life on the securities. An average life of eight years is used for amortization of mortgage discounts.



COMPARISON SUMMARY

	<u>Fiscal Year Ended 1981</u>	<u>Fiscal Year Ended 1983</u>
Present Value of Benefits	\$807,543,614	\$1,041,159,207
Present Value of Normal Costs	\$178,353,678	\$ 230,139,990
Unfunded Accrued Liability	\$402,615,381	\$ 519,174,535
Assets	\$226,577,611	\$ 291,844,682
Active Members		
Number of Lives	14,055	14,243
Annual Payroll	\$237,411,637	\$ 293,239,064
Average Salary	\$ 16,892	\$ 20,588
Inactive Members		
Number of Lives	4,885	5,172
Annual Benefits	\$ 24,264,948	\$ 28,001,676
Average Benefit	\$ 4,967	\$ 5,414
Contributions Based on Payroll		
Employer Share	\$ 15,270,316	\$ 21,465,099
Employee Share	\$ 14,688,658	\$ 20,655,760
Present Value of Accrued Benefits		
Vested Benefits	\$413,870,389	\$ 596,865,662
Non-Vested Benefits	\$ 11,802,043	\$ 11,408,999
Total Benefits	\$425,673,432	\$ 608,274,661



## INVESTMENT SECTION

---

INDUSTRIAL

BANKS AND INSURANCE

OTHER FINANCIAL

TRANSPORTATION EXCLUDING RAILROADS

RAILROADS

UTILITIES

CANADIAN

CONVERTIBLE BONDS

U.S. BANKERS ACCEPTANCE

U.S. GOVERNMENT OBLIGATIONS

U.S. GOVERNMENT AGENCIES

STATE DIRECT OR MUNICIPAL

MISCELLANEOUS



TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
CORPORATE BONDS						
INDUSTRIAL						
AMAX INC	1,000	14.250	12-15-90	995,148	969,460	14.391
AMERICAN CAN COMPANY	1,000	11.375	07-01-10	994,515	751,430	11.450
AMERICAN HOSPITAL SUPPLY CORP	500	7.875	08-15-07	498,843	288,395	7.900
ANACONDA CO	100	6.625	11-15-93	99,198	64,401	6.793
ANACONDA CO	100	6.625	11-15-93	70,313	64,401	13.248
ANACONDA CO	250	6.625	11-15-93	239,821	161,003	7.510
ANACONDA CO	100	6.625	11-15-93	74,784	64,401	12.200
ARKLA INC	1,000	11.125	05-01-03	1,000,000	788,710	11.125
ARMCO STEEL	500	9.200	07-15-00	358,012	328,755	14.415
ATLANTIC RICHFIELD	300	8.625	04-01-00	300,000	197,688	8.625
ATLANTIC RICHFIELD	2,275	7.750	12-15-03	1,360,458	1,327,281	13.750
BERKSHIRE HATHAWAY PP	328	8.000	03-01-93	328,000	223,666	8.000
BETHLEHEM STEEL	500	8.450	03-01-05	500,000	279,995	8.450
BURLINGTON INDUSTRIES	500	9.000	08-15-95	384,192	344,065	13.799
CITIES SERVICE	250	6.625	08-01-99	238,598	129,220	7.330
CITIES SERVICE	525	6.625	08-01-99	482,509	271,362	8.043
CITIES SERVICE GAS	500	13.000	09-15-05	500,000	407,605	13.000
CONSOLIDATED NATURAL GAS	1,000	12.875	10-01-00	1,000,000	898,880	12.875
DAYTON HUDSON CORP	104	9.750	06-01-95	104,000	78,851	9.750
DOW CHEMICAL CO	150	7.750	07-15-99	107,467	91,101	12.651
DOW CHEMICAL CO	200	7.750	07-15-99	142,425	121,468	12.750
DOW CHEMICAL CO	100	8.875	05-01-00	68,550	66,698	14.550
DOW CHEMICAL CO	2,000	11.250	07-15-10	1,910,185	1,547,180	11.828

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
INDUSTRIAL (CONT'D)						
EATON	300	7.000	04-01-11	162,862	144,375	14.571
ENGELHARD MINERALS & CHEMICALS	500	11.750	08-01-05	497,891	403,205	11.812
ENGELHARD MINERALS & CHEMICALS	500	11.750	08-01-05	497,891	403,205	11.812
ENGELHARD MINERALS & CHEMICALS	2,000	11.750	08-01-05	1,764,776	1,612,820	13.450
ENGELHARD MINERALS & CHEMICALS	800	11.750	08-01-05	601,205	645,128	11.750
ENSERCH	1,000	16.375	04-01-07	996,358	1,006,670	16.440
FOOD MAKER INC PP	100	8.750	11-01-89	99,997	82,106	8.750
FORD MOTOR CO	250	7.850	01-15-94	168,068	168,358	15.848
GENERAL MILLS	176	8.875	10-15-95	176,000	124,483	8.875
GENERAL MILLS	1,000	9.375	03-01-09	696,228	673,750	13.700
GULF OIL CORP	50	6.625	06-15-93	50,000	32,914	6.625
HARSCO CORP	1,000	12.250	05-01-10	1,004,704	848,530	12.185
HOOVER CHEMICAL PP	19	10.500	06-29-96	19,345	14,826	10.500
HOOVER CHEMICAL PP	414	10.500	06-29-96	414,393	317,582	10.500
INCO LIMITED	500	12.375	07-15-10	496,525	365,805	12.476
INGERSOLL RAND	200	8.050	03-01-04	123,644	120,148	14.450
INGERSOLL RAND	500	8.750	05-01-85	499,875	483,670	8.796
INLAND STEEL	500	9.500	09-01-00	498,382	336,330	9.550
INLAND STEEL	500	7.900	01-15-07	500,000	265,020	7.900
INTERNATIONAL HARVESTER	100	6.250	03-01-98	100,000	47,000	6.250
INTERNATIONAL MINERALS & CHEMICALS	1,000	11.875	05-01-05	962,988	811,990	12.400
KRAFT INC	500	7.600	01-15-07	500,000	284,280	7.600
LUCKY STORES PW WESTVILLE PP	774	16.000	10-29-01	774,137	859,982	16.000
LUCKY STORES PW GENEVA PP	130	16.000	10-29-01	130,009	144,426	16.000
LUCKY STORES BAKERY PP	96	16.000	12-10-01	96,285	107,013	16.000

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
INDUSTRIAL (CONT'D)						
MARATHON OIL	250	8.500	02-01-00	249,673	148,740	8.523
J RAY McDERMOTT & CO	500	10.200	12-01-99	443,093	373,495	11.942
MOBIL CORP	875	8.500	06-15-01	658,602	557,961	12.000
MOBIL OIL	500	7.375	10-01-01	365,467	286,140	11.150
MONSANTO	441	9.125	07-01-00	304,804	303,871	14.650
MOTOROLA	1,500	8.000	10-01-07	903,998	887,175	14.649
NATIONAL STEEL CORP	300	8.375	08-01-06	300,000	165,471	8.375
OUTBOARD MARINE CORP	100	7.750	02-01-96	99,768	59,649	7.795
OWENS ILLINOIS	559	7.625	04-01-01	415,400	327,842	11.200
PACKAGING CORP OF AMERICA	105	4.375	10-01-87	105,000	83,406	4.375
JC PENNEY	250	9.000	06-15-99	250,000	171,323	9.000
JC PENNEY	2,000	12.000	07-15-10	1,855,478	1,658,380	12.980
PENNZOIL	1,000	12.125	12-01-07	971,841	819,910	12.517
PHILIP MORRIS PP	1,000	8.875	11-30-98	1,000,000	674,450	8.875
RESEARCH PROPERTIES INC PP	223	8.250	11-01-99	222,830	140,298	8.250
RJ REYNOLDS TOBACCO CO	50	7.875	09-01-94	49,949	36,306	7.898
RICHARDSON MERRELL	500	8.850	12-15-99	358,076	334,080	14.050
ST REGIS PAPER	1,000	10.625	06-15-10	966,418	705,590	11.070
SCOTT PAPER	200	8.875	06-01-00	190,664	133,146	9.550
SEARS ROEBUCK & CO	500	8.000	04-01-06	345,084	295,750	12.800
SEARS ROEBUCK & CO	500	8.000	04-01-06	499,091	295,750	8.020
SHELL OIL	200	5.300	03-15-92	199,846	126,346	5.318
SHELL OIL	150	5.300	03-15-92	136,361	94,760	7.750
SHELL OIL	200	7.250	02-15-02	122,338	110,784	13.680

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
INDUSTRIAL (CONT'D)						
SHELL OIL	500	8.750	05-15-05	497,388	318,905	8.821
SHELL OIL	500	8.000	04-15-07	346,942	292,150	12.000
SHELL OIL BT ALASKA PP	399	8.400	03-14-01	398,667	254,800	8.400
SHELL OIL UST ATLANTIC PP	438	9.300	03-07-02	438,088	303,231	9.300
STANDARD OIL OF CALIFORNIA PP VESSEL 169	304	7.500	01-01-99	303,518	181,704	7.500
STANDARD OIL OF CALIFORNIA PP CHEVRON	795	8.500	07-02-99	794,827	520,326	8.500
STANDARD OIL OF INDIANA	400	6.000	01-15-98	266,273	217,996	11.000
STANDARD OIL CO OHIO	250	8.500	01-01-00	249,672	162,708	8.523
STANDARD BRANDS	100	6.750	06-01-93	69,977	66,740	13.262
SYSTEMS BUILDING CORP PP	528	8.000	07-01-97	527,779	339,842	8.000
TENNECO	1,000	12.125	05-01-05	873,598	825,300	14.158
TENNECO	500	12.125	05-01-05	407,842	412,650	15.350
TENNECO	1,000	14.500	04-01-06	986,940	961,280	14.726
TEXAS OIL & GAS	1,500	11.500	11-01-02	1,475,186	1,203,525	11.727
UNION CARBIDE CORP	1,000	8.500	01-15-05	611,234	611,540	15.400
UNION OIL CO OF CALIFORNIA	250	6.625	06-01-98	146,335	145,913	14.424
UNION OIL CO OF CALIFORNIA	100	8.625	03-01-06	99,458	62,938	8.695
UNION OIL CO OF CALIFORNIA	900	8.625	03-01-06	895,121	566,442	8.695
UNION OIL CO OF CALIFORNIA PP	444	7.500	01-01-98	444,059	272,719	7.500
WHEELABRATOR FRYE	715	11.750	07-15-05	675,092	584,441	12.550
WHEELABRATOR FRYE	1,000	11.750	07-15-05	988,747	817,400	11.900
WITCO CHEMICAL	500	9.500	08-15-09	498,429	336,485	9.538
WITCO CHEMICAL	250	9.500	08-15-09	201,434	168,243	12.100
WITCO CHEMICAL	250	9.500	08-15-09	200,045	168,243	12.200
YOUNGSTOWN SHEET & TUBE CO PP	546	4.600	07-01-95	462,337	248,769	7.527



TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
INDUSTRIAL (CONT'D)						
SUBCLASS TOTAL	53,263			47,461,350	38,604,545	
BANKS AND INSURANCE						
AMERICAN GENERAL INSURANCE CO	500	9.375	12-15-08	496,943	325,575	9.450
AMERICAN GENERAL INSURANCE CO	250	9.375	12-15-08	162,546	162,788	15.350
AMERICAN GENERAL INSURANCE CO	500	9.375	12-15-08	496,943	325,575	9.450
BANKERS TRUST NEW YORK CORP	500	8.625	11-01-02	499,082	310,560	8.649
CHEMICAL NEW YORK	500	8.250	08-01-02	498,080	296,340	8.300
CHEMICAL NEW YORK	400	8.250	08-01-02	398,464	237,072	8.300
CITICORP NOTES	700	8.450	03-15-07	509,356	415,443	12.700
CITICORP NOTES	500	8.450	03-15-07	340,104	296,745	13.650
CITICORP NOTES	500	8.450	03-15-07	350,470	296,745	12.550
CROCKER NATIONAL	2,300	8.600	12-01-02	1,829,729	1,364,383	11.394
CROCKER NATIONAL	500	8.600	12-01-02	337,957	296,605	14.150
FIRST INTERSTATE BANCORP	1,000	12.250	05-15-10	837,709	834,370	15.000
FIRST INTERSTATE BANCORP	1,000	12.250	05-15-10	993,092	834,370	12.350
FIRST INTERSTATE BANKS PP	1,000	13.500	03-01-99	1,000,000	930,830	13.500
FIRST SECURITY PP	468	8.500	10-01-97	468,000	309,044	8.500
IRVING BANK	1,000	12.375	11-15-07	979,709	825,130	12.650
REPUBLIC NEW YORK CORP	100	9.000	12-01-01	84,187	65,811	11.170
REPUBLIC NEW YORK CORP	200	8.750	12-01-02	154,453	128,000	12.000
SAFECO CORP	500	7.600	12-15-86	500,000	439,725	7.600
TRANSAMERICA CORP	1,000	11.875	06-01-05	955,857	809,390	11.875
UNITED STATES NATL BANK OF OREGON	500	7.750	01-15-02	343,467	292,340	12.250
SUBCLASS TOTAL	13,918			12,236,148	9,796,841	

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
OTHER FINANCIAL						
AMERICAN EXPRESS CREDIT CORP	1,000	11.250	07-01-00	946,720	799,680	12.050
AMERICAN EXPRESS CREDIT CORP	1,000	11.250	07-01-00	828,328	799,680	14.449
ASSOCIATES INVESTMENT CO	300	7.375	12-01-88	299,481	238,944	7.451
BENEFICIAL CORP	500	8.300	06-01-03	500,000	296,055	8.300
BENEFICIAL CORP	500	8.350	02-15-88	500,000	422,825	8.350
BENEFICIAL FINANCE CO	50	5.000	11-01-90	44,958	32,103	8.326
CIT FINANCIAL CORP	150	6.375	10-01-86	147,899	130,790	7.398
CIT FINANCIAL CORP	150	4.625	05-01-89	134,883	105,870	8.977
CNA FINANCIAL CORP	250	8.500	12-15-95	249,426	170,678	8.549
CHANNELVIEW LEASING CO PP	443	9.250	07-15-96	442,714	319,901	
CHRYSLER FINANCIAL CORP	100	7.700	03-01-92	99,325	67,896	7.877
CIT FINANCIAL CORP NOTES PP	1,000	14.700	09-01-89	1,006,136	1,029,010	14.506
CLARK EQUIPMENT CREDIT CORP	300	7.850	12-15-91	300,000	209,211	7.850
GENERAL MOTORS ACCEPTANCE CORP	180	6.250	08-01-88	157,940	152,644	10.801
HELLER WALTER E CO	300	9.500	12-01-89	300,000	253,233	9.500
INTERNATIONAL HARVESTER CREDIT	200	8.625	08-01-91	200,000	135,250	8.625
INTERNATIONAL HARVESTER CREDIT	300	7.500	01-15-94	299,318	165,375	7.550
INTERNATIONAL HARVESTER CREDIT	200	7.500	01-15-94	199,545	110,250	7.550
INTERNATIONAL HARVESTER CREDIT	300	7.500	01-15-94	299,318	165,375	7.550
INTERNATIONAL HARVESTER CREDIT	100	7.500	01-15-94	99,773	55,125	7.550
TRANSAMERICA FINANCIAL	500	9.875	03-01-99	385,459	358,455	14.251
SUBCLASS TOTAL	7,823			7,441,223	6,018,350	
TRANSPORTATION EXCL. RAILROADS						
CALIFORNIA & HAWAIIAN SUGAR CO. PP	331	8.250	08-24-93	331,027	217,796	8.250
CORTEZ CAPITAL CORP PP	2,000	12.625	05-15-03	2,000,000	1,774,000	12.625

9.250

32

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
TRANSPORTATION EXCL. RAILROADS (CONT'D)						
EXXON PIPELINE CO	800	9.000	10-15-04	590,393	541,944	12.650
EXXON PIPELINE CO	1,000	9.000	10-15-04	739,724	677,430	13.200
EXXON PIPELINE CO	500	8.875	10-15-00	393,651	342,855	11.900
LAKEHEAD PIPELINE	100	7.125	04-15-93	94,609	68,303	8.503
PLANTATION PIPELINE PP	213	4.500	02-01-94	187,967	107,367	7.687
PLANTATION PIPELINE PP	188	7.000	02-01-99	187,500	104,513	7.000
SOHIO BP TRANS ALASKA PIPELINE	500	9.750	12-01-99	522,992	363,290	9.058
SUBCLASS TOTAL	5,632			5,047,863	4,197,498	
RAILROADS						
AMERICAN RAIL BOX CAR PP	273	9.125	11-01-90	273,169	220,262	9.125
BURLINGTON NORTHERN	250	8.600	01-15-99	235,443	166,250	9.501
BURLINGTON NORTHERN PP	80	9.625	10-01-87	80,000	71,390	9.625
BURLINGTON NORTHERN PP	193	7.750	01-15-86	193,264	177,642	7.750
FRUIT GROWERS EXPRESS PP	140	9.250	05-15-89	140,000	118,714	9.250
GSCX FIRST EQUIPMENT PP	52	9.750	06-15-86	52,064	48,701	9.750
GENERAL AMERICAN TRANSPORTATION CO. PP	250	8.150	06-01-97	179,620	161,005	12.700
GENERAL AMERICAN TRANSPORTATION CO. PP	500	8.150	06-01-97	500,000	322,010	8.150
GENERAL AMERICAN TRANSPORTATION CO. PP	500	9.000	11-15-98	421,785	343,365	11.350
GRAND TRUNK WESTERN RAILWAY PP	28	9.250	09-15-85	28,200	26,851	9.250
MISSOURI PACIFIC RR PP	661	9.750	06-01-94	661,073	518,546	9.750
NORFOLK & WESTERN RY EQUIP PP	17	8.875	10-01-84	16,667	16,466	8.875
PENN CENTRAL TRANSPORT PP	59	10.000	05-15-85	58,987	57,267	10.000
PULLMAN TRANSPORT LEASING	200	7.750	06-15-92	200,000	141,098	7.750
ST LOUIS SAN FRANCISCO RY TRUST PP	10	9.500	02-01-85	10,000	9,779	9.500

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
RAILROADS (CONT'D)						
ST LOUIS SAN FRANCISCO RY TRUST PP	50	9.750	07-01-85	49,639	47,949	9.750
ST LOUIS SOUTHWESTERN RY PP	400	9.000	08-01-91	400,000	314,812	9.000
SEABOARD COASTLINE Rwy EQUIP TRUST PP	42	10.500	12-01-85	42,954	41,170	10.500
SOUTHERN RR PP	400	7.375	11-15-91	394,335	283,280	7.700
SPOKANE PORTLAND & SEATTLE RR EQUIP TR	10	9.625	03-01-85	9,781	9,535	9.625
TOWSON EQUIPMENT CORP	34	8.500	01-01-85	33,869	33,062	8.500
TRAILER TRAIN PP	33	10.500	07-15-85	33,333	32,313	10.500
TRAILER TRAIN PP	278	8.750	04-01-89	277,778	230,431	8.750
UNION PACIFIC RR	500	7.700	01-01-91	500,000	360,190	7.700
UNION TANK CAR	39	9.300	11-15-89	39,000	32,175	9.300
ADJUST SUBTOTALS						
SUBCLASS TOTAL	4,999			4,830,961	3,784,363	
UTILITIES						
ALABAMA POWER CO	500	10.500	12-01-05	500,000	360,220	10.500
BALTIMORE GAS & ELECTRIC	200	6.125	08-01-97	124,442	105,470	12.020
BROOKLYN UNION GAS	602	4.375	05-28-88	553,949	452,366	8.251
CAROLINA POWER & LIGHT	2,000	12.875	12-01-13	1,980,376	1,725,800	13.000
CAROLINA POWER & LIGHT	1,000	12.875	12-01-13	958,075	862,900	13.450
CENTRAL ILLINOIS LIGHT	500	9.250	05-01-06	497,265	335,210	9.325
CENTRAL ILLINOIS PUBLIC SERVICE	25	4.750	01-01-89	23,445	18,170	7.356
CENTRAL ILLINOIS PUBLIC SERVICE	100	5.875	05-01-97	94,747	51,671	6.754
CENTRAL MAINE POWER	200	7.700	07-01-97	200,000	114,050	7.700
CENTRAL POWER & LIGHT	1,000	12.375	01-01-10	1,000,000	834,840	12.375
CENTRAL POWER & LIGHT	2,000	12.125	03-01-13	1,980,846	1,632,580	12.250
CHESAP & POTOMAC TEL MARYLAND	100	5.875	06-01-04	100,603	44,543	5.799

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
UTILITIES (CONT'D)						
CHESAP & POTOMAC TEL VIRGINIA	225	5.250	05-01-05	226,324	93,364	5.185
CHESAP & POTOMAC TEL WEST VIRGINIA	200	9.000	05-15-15	188,691	123,878	9.659
CLEVELAND ELECTRIC ILLUM CO	1,000	16.625	03-01-12	984,992	1,007,500	16.897
CLEVELAND ELECTRIC ILLUM CO	1,000	12.250	06-01-13	985,542	782,730	12.442
CLEVELAND ELECTRIC ILLUM CO	1,000	12.250	06-01-13	985,542	782,730	12.442
CLEVELAND ELECTRIC ILLUM CO	1,000	12.250	06-01-13	974,606	782,730	12.590
CLEVELAND ELECTRIC ILLUM CO	1,000	12.250	06-01-13	985,542	782,730	12.442
COLUMBIA GAS SYSTEM	1,400	9.875	06-01-99	1,160,664	1,024,968	12.500
COLUMBIA GAS SYSTEM	200	10.250	05-01-99	162,488	147,694	13.700
COLUMBIA GAS SYSTEM	1,000	11.750	10-01-99	863,080	832,240	14.150
COLUMBIA GAS SYSTEM	500	12.750	08-01-00	497,983	440,275	12.817
COMMONWEALTH EDISON	300	5.250	04-01-96	154,417	148,641	16.000
COMMONWEALTH EDISON PP	933	9.125	06-01-98	933,000	632,126	9.125
CONSOLIDATED NATURAL GAS	336	6.125	07-01-92	246,382	213,125	11.550
CONSOLIDATED NATURAL GAS	1,000	11.125	04-01-08	997,809	783,130	11.150
CONSUMERS POWER PP	1,000	10.625	07-01-99	1,000,000	725,620	10.625
DELAWARE POWER & LIGHT	50	4.625	10-01-94	50,307	25,032	4.507
DETROIT EDISON	150	6.000	12-01-96	150,000	75,156	6.000
DIAMOND STATE TEL	50	4.750	04-01-94	50,363	30,817	4.604
DUQUESNE LIGHT	100	5.125	02-01-96	100,430	47,400	5.048
EL PASO ELECTRIC	100	4.625	02-01-92	90,981	59,723	7.012
EL PASO ELECTRIC	1,000	16.350	05-01-91	1,000,000	1,048,560	16.350
EL PASO ELECTRIC PP	1,000	9.950	05-01-04	1,000,000	700,580	9.950
EQUITABLE GAS	455	8.000	06-15-97	455,000	287,970	8.000



TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
UTILITIES (CONT'D)						
FLORIDA POWER CORP	1,360	8.000	12-01-03	956,857	784,774	12.100
GENERAL TEL CALIFORNIA	1,000	10.750	10-01-09	976,835	723,520	11.066
GENERAL TEL FLORIDA	200	7.500	08-01-02	198,840	111,390	7.581
GENERAL TEL KENTUCKY PP	1,000	13.750	12-01-00	1,000,000	947,220	13.750
GEORGIA POWER	500	7.500	12-01-02	500,000	267,550	7.500
GULF POWER	100	4.625	10-01-94	100,657	49,579	4.499
HARTFORD ELECTRIC LIGHT	50	4.250	04-01-93	49,890	26,083	4.295
HOUSTON LIGHTING & POWER	665	8.125	02-01-04	458,732	379,283	12.500
HOUSTON LIGHTING & POWER	500	11.250	12-01-09	421,180	376,780	13.470
HOUSTON LIGHTING & POWER	1,000	12.000	06-01-10	977,319	799,140	12.300
IDAHO POWER	65	4.500	10-15-88	62,782	47,004	5.901
IDAHO POWER	500	9.000	08-15-08	497,487	305,945	9.060
ILLINOIS POWER CO	50	5.850	10-01-96	45,800	25,896	7.594
ILLINOIS POWER CO	1,000	12.000	11-15-12	980,632	794,970	12.250
INTERNATIONAL TEL & TEL	500	12.625	02-01-05	463,863	434,480	13.880
IOWA ILLINOIS GAS AND ELECTRIC	500	8.750	04-01-06	499,093	309,135	8.770
IOWA PUBLIC SERVICE	1,000	9.750	09-01-09	987,406	668,470	9.907
KANSAS CITY POWER & LIGHT	900	7.625	05-01-02	564,382	475,974	14.400
KENTUCKY POWER	650	5.125	01-01-96	572,108	309,153	7.537
LONG ISLAND LIGHTING	500	4.550	06-01-95	500,000	225,705	4.550
MASSACHUSETTS ELECTRIC	1,000	12.500	10-01-12	1,000,000	847,700	12.500
MINNESOTA POWER & LIGHT	400	8.700	09-01-06	400,000	245,416	8.700
MINNESOTA POWER & LIGHT	500	8.350	09-01-07	500,000	295,525	8.350
MINNESOTA POWER & LIGHT	500	8.350	09-01-07	500,000	295,525	8.350
MONONGAHELA POWER	250	8.875	05-01-01	252,558	162,810	8.698

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
UTILITIES (CONT'D)						
MONTANA POWER	600	7.500	04-01-01	601,156	331,860	7.466
MONTANA POWER	500	8.625	03-01-04	500,864	299,670	8.599
MONTANA POWER	500	9.875	01-01-09	497,082	329,880	9.949
MONTANA POWER	500	9.875	01-01-09	497,082	329,880	9.875
MOUNTAIN STATES TEL & TEL	505	7.875	11-15-16	368,659	275,649	11.100
NATIONAL RURAL UTILITIES	500	9.750	04-01-09	498,019	335,295	9.800
NATIONAL RURAL UTILITIES	1,000	9.750	09-01-09	655,716	670,050	15.800
NATIONAL RURAL UTILITIES	1,000	9.750	09-01-09	995,972	670,050	9.800
NATIONAL RURAL UTILITIES	1,000	14.750	02-01-11	983,322	964,360	15.028
NATIONAL RURAL UTILITIES	1,500	14.750	02-01-11	1,500,000	1,446,540	14.750
NATIONAL RURAL UTILITIES	500	15.750	08-15-91	498,217	521,250	15.750
NEW ENGLAND TEL & TEL	150	4.000	04-01-93	141,028	88,026	5.271
NEW ENGLAND TEL & TEL	100	4.625	04-01-99	83,035	41,731	7.476
NEW ENGLAND TEL & TEL	75	4.500	07-01-02	67,230	28,349	5.856
NEW YORK STATE ELECTRIC & GAS	200	6.250	09-01-97	193,907	100,942	6.751
NIAGARA MOHAWK POWER	400	8.250	12-01-03	275,634	219,464	12.700
NIAGARA MOHAWK POWER	1,000	12.500	06-15-13	1,000,000	784,750	12.500
NORTHERN STATES POWER	250	4.375	09-01-93	249,904	126,610	4.382
NORTHWESTERN BELL TEL	350	7.500	04-01-05	220,209	189,487	12.650
OHIO BELL TEL	150	5.000	02-01-06	150,799	57,869	4.941
OHIO EDISON	350	9.500	05-15-08	347,909	204,131	9.576
OTTER TAIL POWER PP	970	13.375	11-01-05	970,000	892,138	13.375
OTTER TAIL POWER	500	9.625	11-01-08	500,000	323,335	9.625
PACIFIC GAS & ELECTRIC	190	8.000	06-01-03	116,773	108,524	14.943

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
UTILITIES (CONT'D)						
PACIFIC GAS & ELECTRIC	1,000	7.750	12-01-05	655,606	547,750	12.520
PACIFIC GAS & ELECTRIC	500	10.125	08-01-12	498,940	343,620	10.151
PACIFIC TEL & TEL	200	4.625	05-01-00	194,656	79,206	4.983
PACIFIC TEL & TEL	20	6.000	11-01-02	17,388	9,205	8.041
PACIFIC TEL & TEL	500	9.875	02-15-16	500,000	335,265	9.875
PACIFIC TEL & TEL	1,000	16.125	04-01-21	990,813	1,062,500	16.288
PENNSYLVANIA ELECTRIC	100	4.625	10-01-94	100,614	43,859	4.507
PENNSYLVANIA POWER & LIGHT	500	7.500	01-01-03	498,841	268,115	7.531
PEOPLES GAS	300	6.250	08-15-92	241,199	200,931	10.000
PHILADELPHIA ELECTRIC	100	7.750	12-15-00	70,510	51,844	12.801
POTOMAC ELECTRIC POWER	50	4.625	12-01-93	50,545	27,733	4.402
POTOMAC ELECTRIC POWER	100	4.500	05-15-99	100,000	41,595	4.500
POTOMAC ELECTRIC POWER	400	4.500	05-15-99	277,366	166,380	9.150
PUBLIC SERVICE COLORADO	50	4.500	10-01-91	50,255	30,370	4.363
PUBLIC SERVICE COLORADO	500	9.250	10-01-08	500,000	313,340	9.250
PUBLIC SERVICE INDIANA	1,000	14.750	02-01-11	966,733	891,850	15.300
PUBLIC SERVICE INDIANA	1,000	15.750	12-01-11	963,053	973,400	16.399
PUBLIC SERVICE NEW HAMPSHIRE	200	7.625	06-15-02	200,000	81,046	7.625
PUBLIC SERVICE OKLAHOMA	1,000	12.125	03-01-13	996,416	826,840	12.170
PUBLIC SERVICE ELECTRIC & GAS	50	4.375	11-01-86	49,635	41,609	4.880
PUBLIC SERVICE ELECTRIC & GAS	10	4.625	08-01-88	9,872	7,431	5.155
PUBLIC SERVICE ELECTRIC & GAS	295	7.750	08-15-96	295,000	181,000	7.750
PUBLIC SERVICE ELECTRIC & GAS	400	7.500	04-01-02	400,000	220,504	7.500
PUBLIC SERVICE ELECTRIC & GAS	550	8.750	04-01-06	400,234	336,177	12.500
PUBLIC SERVICE ELECTRIC & GAS	1,000	14.375	09-01-12	1,000,000	955,310	14.375



TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
UTILITIES (CONT'D)						
PUGET SOUND POWER & LIGHT	50	4.625	11-01-93	50,059	26,117	4.599
ROCHESTER GAS & ELECTRIC	100	4.500	11-15-91	100,516	59,901	4.365
SAN DIEGO GAS & ELECTRIC CO	50	5.500	09-01-94	50,000	28,022	.000
SAN DIEGO GAS & ELECTRIC CO	50	5.500	09-01-94	42,689	28,022	.000
SOUTH CAROLINA ELECTRIC & GAS	500	10.125	04-01-09	495,864	352,435	10.231
SOUTH CENTRAL BELL TEL	550	8.250	12-01-04	403,115	328,730	11.870
SOUTH CENTRAL BELL TEL	300	8.250	12-01-04	207,643	179,307	12.500
CENTRAL TEL FLORIDA	500	7.650	02-01-97	500,000	306,400	7.650
SOUTHERN BELL TEL & TEL	25	4.375	03-01-98	22,797	10,457	5.756
SOUTHERN CALIFORNIA EDISON	250	6.125	08-15-91	188,120	167,198	11.432
SOUTHERN CALIFORNIA EDISON	1,000	16.000	04-15-12	987,431	1,044,280	16.220
SOUTHERN NEW ENGLAND TEL	250	8.125	05-01-08	247,582	143,408	8.255
SOUTHERN UNION	1,000	12.875	09-15-05	1,010,531	856,630	12.717
SOUTHWESTERN BELL TEL	1,000	11.375	01-15-20	323,783	775,000	14.125
SOUTHWESTERN PUBLIC SERVICE	500	8.750	03-01-08	500,000	306,940	8.750
TUCSON GAS & ELECTRIC PP	250	4.550	02-01-95	250,000	119,008	4.550
UNION ELECTRIC	300	4.500	11-01-93	300,714	155,028	4.450
UNITED TEL INDIANA PP	120	9.125	04-01-00	119,500	80,304	9.125
UNITED TEL MISSOURI PP	20	7.875	06-01-03	20,000	11,424	7.875
UNITED TEL NORTHWEST PP	425	10.750	09-01-99	425,000	325,958	10.750
UNITED TEL PENN PP	122	9.750	06-01-00	121,500	85,393	9.750
UTAH POWER & LIGHT	600	7.500	05-01-02	600,000	328,926	7.500
UTAH POWER & LIGHT	500	10.250	11-01-05	501,782	358,825	10.195
UTAH POWER & LIGHT	1,200	9.125	05-01-08	1,200,000	744,528	9.125

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
UTILITIES (CONT'D)						
UTAH POWER & LIGHT	1,000	16.375	12-01-11	977,064	1,055,120	16.788
UTAH POWER & LIGHT	1,000	16.375	12-01-11	983,983	1,055,120	16.664
UTAH POWER & LIGHT	1,000	13.000	12-01-12	1,000,000	865,690	13.000
UTAH POWER & LIGHT	1,000	13.000	12-01-12	1,000,000	865,690	13.000
VIRGINIA ELECTRIC POWER	150	4.500	05-01-95	149,660	73,457	4.538
WASHINGTON WATER POWER	400	4.625	09-01-94	400,000	198,812	4.625
WEST PENN POWER	300	4.875	12-01-95	182,593	146,610	12.508
WISCONSIN MICHIGAN POWER	200	5.875	08-01-96	185,920	103,114	7.151
WISCONSIN NATURAL GAS	100	4.875	10-01-90	100,170	65,296	4.832
WISCONSIN NATURAL GAS	150	4.875	10-01-90	136,235	97,944	7.760
WISCONSIN NATURAL GAS	100	8.750	09-15-94	100,652	68,907	8.600
WISCONSIN TEL CO	25	4.875	05-01-95	23,699	12,584	5.849
SUBCLASS TOTAL	76,618			72,073,107	56,832,871	
CANADIAN						
BELL CANADA	1,000	9.000	01-15-08	1,000,000	636,830	9.000
BELL CANADA	800	13.375	10-15-10	762,088	717,152	14.100
BELL CANADA PP	500	9.500	06-01-04	500,000	376,835	9.500
BC HYDRO & POWER	1,000	8.375	06-15-07	1,000,000	598,670	8.375
BC HYDRO & POWER	1,000	15.500	07-15-11	993,714	1,022,500	15.608
BC HYDRO & POWER	500	15.500	11-15-11	495,674	511,250	15.649
BC HYDRO & POWER	1,000	12.500	09-01-13	986,914	850,000	12.680
BC HYDRO & POWER	1,000	12.500	09-01-13	978,109	850,000	12.794
BC HYDRO & POWER	2,000	12.500	01-15-14	1,977,840	1,700,000	12.650
BC HYDRO & POWER PP	835	9.625	07-15-96	835,000	617,441	9.625
CANADIAN NATL RAILWAY CO	1,250	9.700	07-15-04	936,868	861,050	14.000

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
CANADIAN (CONT'D)						
CANADIAN NATL RAILWAY CO	500	9.700	07-15-04	418,458	344,420	12.014
CANADIAN NATL RAILWAY CO	500	9.700	07-15-04	413,987	344,420	12.150
CANADIAN NATL RAILWAY CO	500	9.700	07-15-04	355,490	344,420	9.700
CANADIAN NATL RAILWAY CO	1,000	15.000	06-01-06	953,749	1,000,000	15.848
CANADIAN NATL RAILWAY CO	1,000	14.750	09-01-12	1,000,000	975,000	14.750
CANADIAN NATL RAILWAY PP	645	8.500	07-15-89	644,749	522,620	8.500
CANADIAN NATL RAILWAY PP	412	9.000	07-01-91	411,900	321,056	9.000
CANADIAN NATL RAILWAY PP	936	9.250	03-15-98	936,000	664,270	9.250
CANADIAN PACIFIC EQUIPMENT TRUST PP	233	10.125	07-02-90	233,333	196,985	10.125
GULF CANADA	1,000	15.500	07-01-11	932,429	1,005,000	16.720
GULF CANADA	500	15.500	07-01-11	500,000	502,500	15.500
HYDRO QUEBEC	1,000	8.600	09-15-06	585,163	592,140	16.349
HYDRO QUEBEC	1,000	13.250	12-15-13	1,000,000	888,280	13.250
IMPERIAL OIL	500	9.750	09-15-09	499,184	343,180	9.769
IMPERIAL OIL	500	9.750	09-15-09	413,556	343,180	12.100
MANITOBA HYDRO ELECTRIC BOARD	500	9.375	12-01-04	487,229	334,455	9.763
MUNICIPAL FINANCE BC	500	8.875	05-01-01	500,000	328,680	8.875
MUNICIPAL FINANCE BC	480	8.875	05-01-01	480,000	315,533	8.875
MUNICIPAL FINANCE BC	600	13.750	12-01-05	598,072	553,842	13.803
NEW BRUNSWICK ELECTRIC POWER	500	9.375	05-01-01	500,000	340,975	9.375
NOVA SCOTIA POWER	500	10.500	09-15-00	500,000	370,045	10.500
ONTARIO HYDRO PP	780	9.500	03-15-96	780,000	578,612	9.500
QUEBEC HYDRO ELECTRIC	500	8.250	01-01-04	498,359	290,360	8.290
SUBCLASS TOTAL	25,471			24,107,865	20,241,701	

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
CONVERTIBLE BONDS						
JP MORGAN & CO CV	50	4.750	11-01-98	50,000	38,500	4.750
JP MORGAN & CO CV	100	4.750	11-01-98	100,000	77,000	4.750
PITTSBURGH CO CV	120	9.200	07-01-04	167,702	85,200	9.200
SUBCLASS TOTAL	270			317,702	200,700	
SECURITY TOTAL	187,952			173,473,235	139,635,445	
MONEY MARKET INSTRUMENTS						
US BANKERS ACCEPTANCE						
BAC: CITIBANK, NY	1,000	.000	07-16-84	993,722	995,000	11.300
BAC: CITIBANK, NY	2,000	.000	07-23-84	1,983,822	1,985,620	11.200
BAC: MORGAN GUARANTY TRUST CO, NY	1,000	.000	07-12-84	995,333	996,250	11.200
SUBCLASS TOTAL	4,000			3,972,877	3,976,870	
SECURITY TOTAL	4,000			3,972,877	3,976,870	
GOVERNMENT BONDS						
US GOVERNMENT OBLIGATIONS						
US TREASURY NOTES	2,000	10.750	07-15-90	1,916,453	1,751,260	11.780
US TREASURY NOTES	2,000	11.500	10-15-90	1,977,003	1,808,760	11.772
US TREASURY NOTES	2,000	11.750	11-15-93	1,911,140	1,780,000	12.570
US TREASURY NOTES	2,000	11.375	02-15-89	1,992,447	1,842,500	11.482
US TREASURY NOTES	2,600	11.250	12-31-87	2,553,711	2,442,388	11.880
US TREASURY NOTES	2,000	11.750	01-15-91	2,014,192	1,825,000	11.584
US TREASURY NOTES	1,000	11.750	05-15-89	996,044	931,250	11.864
US TREASURY NOTES	1,000	12.375	04-15-91	999,848	936,880	12.380
US TREASURY NOTES	2,000	12.375	04-15-91	1,948,191	1,873,760	12.960
US TREASURY NOTES	1,000	12.375	04-15-91	948,686	936,880	13.550
US TREASURY NOTES	2,000	13.125	05-15-94	1,965,308	1,923,120	13.450

## TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
US GOVERNMENT OBLIGATIONS (CONT'D)						
US TREASURY NOTES	3,000	13.125	05-15-94	2,937,945	2,884,680	13.510
SUBCLASS TOTAL	22,600			22,160,968	20,936,478	
SECURITY TOTAL	22,600			22,160,968	20,936,478	
GOVERNMENT AGENCIES						
US GOVERNMENT AGENCIES						
DAVERN PARK APTS INC	100	5.150	04-01-05	101,141	41,896	5.023
EL PASO COVE POINT TANKER USGG SERIES F	500	8.100	03-31-03	500,000	314,780	8.100
MARTIN LUTHER TOWER INC FHA MORTGAGE	153	5.150	05-01-06	145,329	63,282	5.732
TWO BUTTES WATER FHA MORTGAGE	110	8.750	03-12-10	110,485	72,385	8.750
FEDERAL FARM CREDIT BANKS	800	9.900	01-20-87	779,313	739,504	11.148
FEDERAL HOME LOAN MORTGAGE CORP	296	8.200	09-15-07	294,350	183,609	8.243
FEDERAL HOUSING ADMINISTRATION	14	4.125	12-29-84	14,150	13,537	4.125
FEDERAL NATIONAL MORTGAGE ASSOCIATION	1,000	8.550	09-12-88	998,125	837,500	8.580
US GG SHIP FINANCING BONDS FOURTH TUG	3,000	11.800	12-31-08	3,000,000	2,618,760	11.800
GNMA PASSTHROUGH	819	9.000	11-15-08	661,015	575,403	11.400
GNMA PASSTHROUGH	496	9.000	03-15-09	400,086	348,295	11.394
GNMA PASSTHROUGH	459	10.000	11-15-09	417,974	346,490	11.238
GNMA PASSTHROUGH	988	11.500	05-15-13	949,886	823,650	11.992
GNMA PASSTHROUGH	983	11.500	05-15-13	945,528	819,871	11.992
GNMA PASSTHROUGH	1,017	10.000	11-15-13	878,365	766,622	11.660
GNMA PASSTHROUGH	1,021	10.000	09-15-13	881,859	769,661	11.670
GATEWAY MANOR INC	100	5.000	02-01-04	100,000	41,557	5.000
GULF RESTON PROPERTIES PP	346	7.950	12-20-93	345,969	242,123	7.950
HOUTECH LTD I MM US GG PP	936	14.800	10-31-96	936,000	995,988	14.800

TEACHERS' RETIREMENT FUND

SECURITY	PAR VALUE (000)	INTEREST RATE	MATURITY DATE	BOOK VALUE	MARKET VALUE	YIELD ON BOOK
US GOVERNMENT AGENCIES (CONT'D)						
US GG SHIP FINANCING BONDS LACHMAR HULL	1,000	8.625	09-25-00	763,021	667,040	12.000
PATRIOT 5 SHIPPING CORP US GG	1,000	8.100	04-12-04	1,000,000	625,210	8.100
ROCKY MOUNTAIN METHODIST HOMES INC	56	5.150	07-01-05	56,000	23,400	5.150
SEA TRAIN STUYVESANT US GG SHIP BONDS PP	824	7.950	09-30-97	824,316	537,850	7.950
SHIPCO #2298 US GG SHIP BONDS	1,000	8.100	08-23-02	794,757	632,440	10.800
US GG SHIP FINANCING BONDS LNG ARIES	500	8.200	12-13-02	500,000	316,250	8.200
TEXACO STAR TANKERS PP	938	9.250	07-03-99	938,010	679,607	9.250
WALNUT CREEK MANOR	91	5.150	10-01-04	91,000	38,376	5.150
SUBCLASS TOTAL	18,547			17,426,679	14,135,086	
SECURITY TOTAL	18,547			17,426,679	14,135,086	
MUNICIPAL BONDS						
STATE-DIRECT OR MUNICIPAL						
SRS BUILDING (LEASE-PURCHASES)	1,321	9.000	11-01-96	1,321,118	1,321,118	9.000
SUBCLASS TOTAL	1,321			1,321,118	1,321,118	
SECURITY TOTAL	1,321			1,321,118	1,321,118	
OTHER HOLDINGS						
MISCELLANEOUS						
MONTANA COMMON STOCK POOL	43,752	.000	00-00-00	43,751,557	58,167,556	
MONTANA MORTGAGES	46,305	.000	00-00-00	46,304,688	46,304,688	
LAND AND BUILDINGS	139	.000	00-00-00	138,578	138,578	
TRITON GROUP LTD COMMON STOCK 665 SHARES	0	.000	00-00-00	0	1,247	
SUBCLASS TOTAL	90,196			90,194,823	104,612,069	
SECURITY TOTAL	90,196			90,194,823	104,612,069	
FUND TOTAL	324,616			308,592,684	284,658,490	



## STATISTICAL

---

CONTRIBUTION RATES

REVENUES

EXPENDITURES

SUMMARY OF ADMINISTRATIVE EXPENSES

ACTIVE MEMBERS

RETIRED MEMBERS

LOCATION OF BENEFIT RECIPIENTS





CONTRIBUTION RATES

<u>EMPLOYEE</u>		<u>EMPLOYER</u>
1937 - 1973	5%	1937 - 1945
1973 - 1975	5.125%	1945 - 1959
1975 - 1977	6.125%	1959 - 1969
1977 - 1983	6.187%	1969 - 1971
1983 -	7.044%	1971 - 1973
		1973 - 1975
		1975 - 1977
		1977 - 1981
		1981 - 09/30/81
		10/01/81 - 06/30/83
		07/01/83 -
		None
		3.75%
		4.00%
		4.50%
		5.125%
		5.25%
		6.25%
		6.312%
		6.432%
		6.463%
		7.320%

UNLESS OTHERWISE NOTED, CONTRIBUTION RATE CHANGES OCCUR ON JULY 1.

REVENUES BY SOURCE

<u>YEAR</u>	<u>EMPLOYEE CONTRIBUTIONS</u>	<u>EMPLOYER CONTRIBUTIONS</u>	<u>INVESTMENT INCOME</u>	<u>OTHER</u>	<u>TOTAL</u>
1978 - 1979	\$ 14,474,092	\$ 13,559,158	\$ 13,279,868		\$ 41,313,118
1979 - 1980	15,516,112	14,568,361	14,945,231		45,062,899
1980 - 1981	16,674,792	15,780,560	18,141,767	\$ 33,195	50,597,119
1981 - 1982	18,230,806	17,880,140	21,825,559		57,936,505
1982 - 1983	20,786,014	20,158,344	25,916,847		66,861,205
1983 - 1984	25,018,366	24,103,285	30,338,736		79,460,387

EXPENDITURES

<u>YEAR</u>	<u>BENEFITS PAYMENTS</u>	<u>WITHDRAWALS</u>	<u>ADMIN. EXPENSES</u>	<u>INVESTMENT EXPENSE</u>	<u>OTHER*</u>	<u>TOTAL</u>
1978 - 1979	\$ 17,294,104	\$ 3,627,872	\$ 251,490	\$	\$ 93,885	\$ 21,267,351
1979 - 1980	18,942,752	3,876,793	261,232		50,532	23,131,309
1980 - 1981	20,599,213	4,742,599	270,669	67,032	132,637	25,812,150
1981 - 1982	24,701,020	5,893,999	324,661	82,270	112,866	31,114,816
1982 - 1983	25,957,774	3,405,461	320,960	93,422	372,869	30,150,486
1983 - 1984	28,791,213	4,230,672	489,981	100,580	493,322	34,105,768

\* INCLUDES PRIOR YEAR ADJUSTMENTS AND DEPRECIATION.

TEACHERS' RETIREMENT SYSTEM  
SUMMARY OF ADMINISTRATIVE EXPENSES  
JULY 1, 1983 - JUNE 30, 1984

RESPONSIBILITY CENTER 3600

Personal Services:

Salaries	153,811.00	
Other Compensation	2,350.00	
Employee Benefits	<u>31,096.39</u>	187,257.39

Operating Expenses:

Contracted Services	232,702.01	
Supplies & Materials	5,884.98	
Communications	22,046.16	
Travel	6,271.58	
Rent	20,925.49	
Utilities	3,134.33	
Repair & Maintenance	696.30	
Other Expenses	<u>781.29</u>	292,442.14

Equipment:	<u>2,013.35</u>	481,712.88
------------	-----------------	------------

RESPONSIBILITY CENTER 3601

Operating Expenses:

Contracted Services	7,709.00	
Utilities	3,134.43	
Other Expenses	<u>57.75</u>	<u>10,901.18</u>

RESPONSIBILITY CENTER 3603

Depreciation Expense	4,983.00	
Equipment	(2,633.00)	<u>2,350.00</u>

TOTAL		<u><u>494,964.06</u></u>
-------	--	--------------------------

MEMBERSHIP

<u>PERIOD ENDED</u>	<u>ACTIVE MEMBERS</u>	<u>INACTIVE VESTED MEMBERS</u>	<u>INACTIVE NON-VESTED</u>	<u>TOTAL</u>
JUNE 30, 1980	14,939	745	2,445	18,129
JUNE 30, 1981	14,793*	754*	2,457*	17,984*
JUNE 30, 1982	14,852	722	1,983	17,557
JUNE 30, 1983	14,934*	723*	2,051*	17,708*
JUNE 30, 1984	15,214	748	2,148	18,110

RETIRED MEMBERS AND BENEFIT RECIPIENTS

<u>PERIOD ENDED</u>	<u>RETIREMENT</u>	<u>SURVIVORS</u>	<u>DISABILITY</u>	<u>CHILD BENEFITS</u>	<u>TOTAL</u>
JUNE 30, 1980	4,040	251	195	50	4,536
JUNE 30, 1981	4,136*	267*	220*	45*	4,668*
JUNE 30, 1982	4,336	268	223	42	4,869
JUNE 30, 1983	4,451*	279*	227*	42*	4,999*
JUNE 30, 1984	4,653	294	227	46	5,220

\* TOTALS WILL NOT AGREE WITH THOSE SHOWN IN THE ACTUARIAL SECTION  
DUE TO THE DIFFERENT TIME FRAMES FROM WHICH THE INFORMATION WAS  
EXTRACTED.

LOCATION OF BENEFIT

RECIPIENTS, 6-30-84

Alabama	2	Nevada	16
Alaska	3	New Jersey	1
Arizona	87	New Mexico	10
California	167	New York	10
Colorado	37	North Carolina	7
Connecticut	1	North Dakota	56
Florida	19	Ohio	4
Georgia	3	Oklahoma	7
Hawaii	2	Oregon	98
Idaho	59	Pennsylvania	4
Illinois	11	Rhode Island	1
Indiana	3	South Carolina	2
Iowa	7	South Dakota	19
Kansas	5	Tennessee	6
Kentucky	2	Texas	22
Louisiana	3	Utah	16
Maine	1	Virginia	10
Maryland	3	Washington	166
Massachusetts	5	West Virginia	2
Michigan	1	Wisconsin	17
Minnesota	45	Wyoming	25
Mississippi	1	Canada	<u>7</u>
Missouri	11	TOTAL	<u>5,220</u>
Montana	4,232		
Nebraska	4		











250 copies of this public document were published at an estimated cost of \$3.12 per copy, for a total cost of \$780.00, which includes \$610.00 for printing and \$170.00 for distribution.



# Montana State Library

*Records Digitization Project*

## COVER SHEET



*This page is not part of the original document and was inserted for formatting purposes*